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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/006,583	12/10/2001	Giorgio Barzaghi	Q67651	3491

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EXAMINER

KNOLL, CLIFFORD H

ART UNIT	PAPER NUMBER
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2112

DATE MAILED: 05/05/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/006,583

Applicant(s)

BARZAGHI ET AL.

Examiner

Clifford H Knoll

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 December 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1, 2, 4, 8, and 10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, the "consumed data" lacks a clear antecedent basis. Reciting "those" is unclear, because it is not clear what reference is intended; perhaps "those data". The "(CONT)" is unclear because it is not clear what modification is intended of the previously recited master control. The "bus (BUS)" lacks clear antecedent basis. The recitation of "when ... varies" is unclear because it is not clearly established the comparison implied by a variation of data.

In claim 2, "the structure of its own message" lacks antecedent basis.

In claim 4, "the controlled peripheral units" lacks clear antecedent basis, because it is not clear which units are referred to among controlled units recited. The "control units that will consume" lacks antecedent basis; the relationship with previously recited control units is not clearly established, nor is it clearly established how consumption identifies or further delimits the control units. The "transmitted data" lacks clear antecedent basis.

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In claim 8, the regularity lacks antecedent basis.

In claim 10, the recitation is unclear because the relationship between "receiving/transmitting and processing signals" and the steps of the method are not clearly established.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-14 are rejected under 35 U.S.C. 102(e) as being anticipated by James (US 6728821).

Regarding claim 1, James discloses a common bus; connecting two or more control units through said common bus (e.g., col. 4, lines 33-49); controlling, through each control unit, at least one peripheral unit of the device to provide data essential to the operation of the peripheral unit and to detect possible data variations in said peripheral unit (e.g., col. 9, lines 36-40); and providing a master controller connected to the common bus and further the steps, carried by each of said control units, of: submitting information concerning the consumed data and those provided by the

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peripheral units controlled by said control units, to said master control (e.g., col. 8, lines 59-65); and sending a message over the bus whenever at least one of the data provided by the peripheral units controlled by said control units varies (e.g., col. 8, lines 53-57).

Regarding claim 2, James also discloses the step of submitting information to the master controller comprises the step of transmitting to the master controller the structure of its own message comprising information provided and/or information consumed/acquired (e.g., col. 8, lines 7-8).

Regarding claim 3, James also discloses the step of assigning a suitable address to each of said control units (e.g., col. 7, lines 37-40).

Regarding claim 4, James also discloses information concerning the control unit that has detected a data variation in the controlled peripheral unit/units and information concerning the control units that will consume the transmitted data (e.g., col. 7, lines 56-57).

Regarding claim 5, James also discloses the information concerning the control units that will consume the transmitted data comprise a logic address for representing a group of control units consuming the same data item (e.g., col. 10, lines 39-41).

Regarding claim 6, James also discloses the step of providing each control unit with a counter that counts forward at each message sent by said control unit (e.g., Figure 6, "Time Stamp").

Regarding claim 7, James also discloses the step of writing the value of said counter into every message that is sent (e.g., col. 6, line 63).

Regarding claim 8, James also discloses at least one control bit to control the regularity of the information exchange (e.g., Figure 6, "Clock-Sync").

Regarding claim 9, James also discloses disabling said master controller after having established the communication between said control units (e.g., col. 8, lines 14-19).

Regarding claim 10, James also discloses wherein said device is a device for receiving/transmitting and processing signals in radio link systems (e.g., col. 4, lines 52-53).

Regarding claim 11, James discloses two or more peripheral units, the apparatus comprising: two or more control units, each control unit controlling at least one peripheral unit of the device to provide data necessary for the operation of the peripheral unit and detect possible data variations of said peripheral unit; a common bus for connecting said two or more control units (e.g., col. 4, lines 33-49); wherein the apparatus further comprises a master controller connected to the common bus and wherein there are provided, in each control unit: means for submitting, to said master controller information concerning the consumed data and the ones provided by the peripheral units that are controlled by said control units (e.g., col. 8, lines 59-65); and means for sending a message (M) whenever at least one of the data provided by the peripheral units controlled by said control units varies (e.g., col. 8, lines 53-57).

Regarding claim 12, James also discloses wherein said device is a device for receiving/transmitting and processing signals in radio link systems (e.g., col. 4, lines 52-53).

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Regarding claim 13, James also discloses program code means adapted to perform one or more of the steps of the method according to claim 1 when said program is run on a computer (e.g., col. 5, lines 12-14).

Regarding claim 14, James also discloses computer-readable medium having a program recorded thereon, said computer readable medium comprising computer program code means adapted to perform one or more of steps of the method according to claim 1 when said program is run on a computer (e.g., col. 5, lines 12-14).

Claims 1-9, and 11-14 are rejected under 35 U.S.C. 102(e) as being anticipated by Takabatake (US 8728244).

Regarding claim 1, Takabatake discloses a common bus; connecting two or more control units through said common bus (e.g., col. 3, lines 50-55); controlling, through each control unit, at least one peripheral unit of the device to provide data essential to the operation of the peripheral unit and to detect possible data variations in said peripheral unit (e.g., col. 9, lines 36-40); and providing a master controller connected to the common bus and further the steps, carried by each of said control units, of: submitting information concerning the consumed data and those provided by the peripheral units controlled by said control units, to said master control (e.g., col. 9, lines 24-25); and sending a message over the bus whenever at least one of the data provided by the peripheral units controlled by said control units varies (e.g., col. 10, lines 52-54).

Regarding claim 2, Takabatake also discloses the step of submitting information to the master controller comprises the step of transmitting to the master controller the structure of its own message comprising information provided and/or information consumed/acquired (e.g., col. 10, lines 52-54).

Regarding claim 3, Takabatake also discloses the step of assigning a suitable address to each of said control units (e.g., col. 9, lines 8-9).

Regarding claim 4, Takabatake also discloses information concerning the control unit that has detected a data variation in the controlled peripheral unit/units and information concerning the control units that will consume the transmitted data (e.g., col. 13, lines 4-11).

Regarding claim 5, Takabatake also discloses the information concerning the control units that will consume the transmitted data comprise a logic address for representing a group of control units consuming the same data item (e.g., col. 12, lines 51-52).

Regarding claim 6, Takabatake also discloses the step of providing each control unit with a counter that counts forward at each message sent by said control unit (e.g., col. 18, lines 6-8).

Regarding claim 7, Takabatake also discloses the step of writing the value of said counter into every message that is sent (e.g., col. 18, lines 6-8).

Regarding claim 8, Takabatake also discloses at least one control bit to control the regularity of the information exchange (e.g., Figure 8, "Ack_Complete").

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Regarding claim 9, Takabatake also discloses wherein said device is a device for receiving/transmitting and processing signals in radio link systems (e.g., col. 3, lines 60-61).

Regarding claim 11, Takabatake discloses two or more peripheral units, the apparatus comprising: two or more control units, each control unit controlling at least one peripheral unit of the device to provide data necessary for the operation of the peripheral unit and detect possible data variations of said peripheral unit; a common bus for connecting said two or more control units (e.g., col. 3, lines 50-55); wherein the apparatus further comprises a master controller connected to the common bus and wherein there are provided, in each control unit: means for submitting, to said master controller information concerning the consumed data and the ones provided by the peripheral units that are controlled by said control units (e.g., col. 9, lines 24-25); and means for sending a message whenever at least one of the data provided by the peripheral units controlled by said control units varies (e.g., col. 10, lines 52-54).

Regarding claim 12, Takabatake also discloses wherein said device is a device for receiving/transmitting and processing signals in radio link systems (e.g., col. 3, lines 60-61).

Regarding claim 13, Takabatake also discloses program code means adapted to perform one or more of the steps of the method according to claim 1 when said program is run on a computer (e.g., col. 5, lines 28-35).

Regarding claim 14, Takabatake also discloses computer-readable medium having a program recorded thereon, said computer readable medium comprising

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computer program code means adapted to perform one or more of steps of the method according to claim 1 when said program is run on a computer (e.g., col. 5, lines 28-35).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Ben-Dor (US 2002/0141418) also discloses a similar communications method on a common bus.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Clifford H Knoll whose telephone number is 703-305-8656. The examiner can normally be reached on M-F 0630-1500.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark H Rinehart can be reached on 703-305-4815. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

chk



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